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	Plaque Rupture (n=90)	Plaque Erosion (n=43)	P value
Lesion length (mm)	18.49±7.53	14.89±5.55	0.003
Distal reference lumen area (mm^2)	7.54±3.2	7.17±2.82	0.53
Minimal lumen area (mm^2)	3.2±1.69	4.2±3.05	0.018
Rupture vs erosion sites			
EEM (mm^2)	17.68±5.93	15.07±7.48	0.0359
lumen area (mm^2)	6.08±2.85	7.02±3.29	0.11
Plaque area (mm^2)	11.61±4.6	7.29±3.38	<0.0001
Plaque burden (%)	65.08±12.15	50.5±16.63	<0.0001
%Fibrotic area	55.03±13.65	71.73±105.9	0.14
%Fibrofatty area	11.98±11.76	15.23±16.51	0.27
%Necrotic core area	24.74±11.07	15.06±12.47	<0.0001
%Dense calcium	8.24±8.96	6.34±10.18	0.29
Remodeling Index	1.12±0.29	0.94±0.36	0.005
Remodeling			0.003
Positive (%)	52(57.7)	14(32.5)	
Intermediate (%)	15(16.6)	4(9.3)	
Negative (%)	23(25.5)	25(58.1)	

CRT-102

Everolimus-Eluting Bioresorbable Vascular Scaffold Use in Acute Coronary Syndromes: Initial Clinical Experience from South Western Canada

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BACKGROUND Contemporary studies have established encouraging clinical outcomes for the everolimus-eluting bioresorbable vascular scaffold (BVS) ABSORB™ in patients with stable coronary artery disease (CAD). There is limited data on its use in patients presenting with acute coronary syndromes (ACS). We aimed to evaluate the safety and efficacy of BVS deployment in the setting of ACS at our tertiary cardiac center in southwestern Ontario.

METHODS Retrospective chart review of all ACS with BVS use was undertaken since June 2013. Data was analyzed for baseline demography and in-hospital and 30-day mortality.

RESULTS 43 BVS were deployed in 30 patients. Mean age was 56.5+2.2 years; 30% were female and 76.6% were less than 65 years old. Nearly 70% were hypertensive and dyslipidemic, while one-third were diabetics and smokers. 50% of the patients presented with STEMI, of which 86.7% received primary PCI. Mean total Syntax score was 14.0+1.5 and 72.1% of lesions were ACC Type "B" lesions, with visible thrombus present in one-third. Complete occlusion was seen in 18.6% of lesions at the outset. 62.8% were LAD lesions. All BVS were deployed in the first attempt. 75% (33/43) of BVS were post dilated. Final TIMI-3 flow was evident in 42 (97.7%) patients, with no case of worsening coronary flow. 30% of all BVS were deployed across bifurcations without any loss of coronary flow in the side branches. There has been no reported case of in-hospital or 30-day mortality, early stent thrombosis or repeat revascularization of the index artery.

CONCLUSIONS Our experience suggests that usage of BVS, in selected 'real-world' patients with ACS, may be a safe and practical option with favorable short-term outcomes. Long-term follow up data and further evaluation in larger randomized controlled trials is needed.

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NSTEMI In Elderly Patients Treated With Early Revascularization: Long-term Outcome.

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BACKGROUND Elderly patients represent a larger proportion of patients with Non-ST elevation acute coronary syndrome (NSTEACS), but their management is still unclear. Recent studies report a mortality rate up to 50% in elderly NSTEACS patients conservatively treated. The aim of this study is to analyze the long term outcome of elderly NSTEACS patients undergoing percutaneous coronary intervention (PCI).

METHODS Study population consisted of 452 consecutive patients (75.4±3.8 years) admitted, from January 2003 to January 2004, at our Institution with diagnosis of NSTEACS and underwent PCI. All clinical, angiographic and follow- up data were collected and entered into a dedicated database. The primary endpoint was the combined of death, acute myocardial infarction, re- PCI or the need for revascularization surgery. Follow-up was conducted at our outpatient clinic or by phone interview.

RESULTS The mean follow-up was 8.7 ± 1.6 years (range 0-10 years). According with age, study population was divided into three groups: group 1 (n=278; age 70-75 years), group 2 (n=130; age 75-80 years), group 3 (n=44; age>80 years). Patients of group 3 showed a significantly higher incidence of diabetes (40.9%) compared with other groups (21.6% and 33.8%, p=0.003), while no other differences in clinical and angiographic features were observed. The overall mortality at long-term follow-up was 22.8%. The in hospital mortality was 1.9%. Subgroup analysis showed a significantly higher mortality in group 3 (43.2%) compared to the other groups (21.4% group 1 and 19.2% group 2; p=0.003). Multivariate analysis identified age (χ=5.2; OR=1.06; 95% CI: 1.00-1.11; p=0.02) and male sex (χ=5.9; OR=2.02; 95% CI: 1.15-3.57; p=0.015) as independent predictors of mortality in long term outcome.

CONCLUSIONS In a consecutive series of elderly patients with NSTEACS, PCI is associated with a low in hospital mortality rate and an improved event free survival at 10 years follow up.

CRT-104

Association between Prolonged QTc Interval and Coronary Blood Flow to the Infarct-related Artery in Patients With Non-ST Elevation Myocardial Infarction

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BACKGROUND Corrected QT (QTc) interval has been reported to prolong when the myocardium is exposed to ischemia. However, little is known about the association between prolonged QTc and coronary blood flow to the infarct-related artery in the setting of non-ST-elevation myocardial infarction (NSTEMI). We hypothesized that prolonged QTc predicts impaired coronary blood flow to the infarct-related artery in patients with NSTEMI.

METHODS We performed a retrospective analysis of 481 consecutive patients with NSTEMI who underwent coronary angiography within five days after presentation. Patients with atrial fibrillation, complete bundle branch block, paced rhythm, electrolytes disturbance, history of coronary artery bypass grafting and those on antiarrhythmic medication were excluded. Electrocardiography and coronary angiography were reviewed by a blind fashion. The QT was measured manually from the onset of QRS complex to the end of T wave, and QTc was calculated using Bazett's formula. QTc prolongation was defined as QTc greater than 450ms in men and 470ms in women. Baseline characteristics, electrocardiographic and angiographic findings including Thrombolysis In Myocardial Infarction flow grade of the infarct-related artery were compared between patients with and without prolonged QTc.

RESULTS Of the 340 patients included in the final analysis, 130 patients (38.2%) had a prolonged QTc interval. With respect to baseline characteristics, there was no significant difference between the two groups. There was no significant difference in the rate of TIMI grade 0/1 flow (25.4% vs. 18.6%, p=0.14) and prevalence of obstructive coronary artery disease (76.9% vs. 75.2%, p=0.72). Median QTc was 453 ms in patients with TIMI 0/1 flow and 449 ms in those with TIMI 2/3 flow (p=0.79). There was no significant difference in the rate of angiographic thrombus (p=0.22), collateral circulation to the infarct-related artery (p=0.43) and in-hospital percutaneous or surgical revascularization (p=0.29) between patients with and without QTc prolongation. The peak troponin I values were comparable between the two groups (0.76 ng/mL vs. 0.62 ng/mL, p=0.8).

CONCLUSION Prolonged QTc interval was observed in one-third of the NSTEMI patients in our cohort of patients. Contrary to our expectation, prolonged QTc did not have a predictive value for impaired coronary flow to the infarct-related artery in patients with NSTEMI.

ACUTE MYOCARDIAL INFARCTION

CRT-105

Is The Presence Of Pulse Enough To Perform Primary PCI Through Forearm Vessels? Has Allen'S Test Got Any Role?

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BACKGROUND Primary PCI is the standard of care for those presenting with STEMI. Trans-radial (TR) vascular access to perform PCI is superior to trans-femoral (TF) access, mainly due to reduced bleeding, leading to overall mortality benefit; patient satisfaction remains very high. Limited skills, concerns with prolonged procedure time, difficult vascular anatomy, presence of cardiogenic shock (CS), previous CABG and abnormal Allen's test are limiting factors.

METHODS We are one of the tertiary cardiac centres in UK, and a default radial centre. Since beginning of the 24/7 STEMI program, we have performed PPCI in 773